

TGAAGTCTTCCAAGCAAATGGGAGCTTCTTGGACCTGGAGCACACAGAGGATTCTACTTCTTAAACTTGTT 80

TTCAGGCAATTCCCTGAGAACCGTTACTTCAGAAGATTGGTGGAGCTGATCTGAAGGCTGGCATGAAATCTCAAG 160

M K S Q

GTCAACATTGGTATTCCAGTTAGATAAAACTGAAAGTGAGCTTCGTGAGAAGCTCTGATTATTGATTCAAACCTG 240

G Q H W Y S S S D K N C K V S F R E K L L I I D S N L

GGGTCCAAGATGTGGAGAACCTCAAGTTCTGCATAGGATTGGTCCCCAACAGAAGCTGGAGAACGCTCAGC 320

G V Q D V E N L K F L C I G L V P N K K L E K S S S A

CTCAGATGTTTGAACATCTTGGCAGAGGATCTGCTGAGTGAGGAAGACCCTTCTGGCAGAACTCTCTATA 400

S D V F E H L L A E D L L S E E D P F F L A E L L Y

TCATACGGCAGAAGAAGCTGCTGCAGCACCTCAACTGTACCAAAGAGGAAGTGGAGCGACTGCTGCCACCCGACAAAGG 480

I I R Q K K L L Q H L N C T K E E V E R L L P T R Q R

GTTTCTCTGTTAGAACCTGCTACGAACTGTAGAAGGCATTGACTCAGAGAACTTAAAGGACATGATCTCCTCT 560

V S L F R N L L Y E L S E G I D S E N L K D M I F L L

GAAAGACTCGCTCCAAAAGTAAATGACCTCCCTAAGTTCTGGCATTAGAGAAACAAGGTAAATAGATGAAG 640

K D S L P K T E M T S L S F L A F L E K Q G K I D E

ATAATCTGACATGCCTGGAGGACCTCTGCAAACAGTTGACTAAACTTTGAGAAACATAGAGAAATACAAAGAGAG 720

D N L T C L E D L C K T V V P K L L R N I E K Y K R E

AAAGCTATCCAGATAGTGACACCTCTGTAGACAAGGAAGGCCAGTCGTATCAAGGAGAGGAAGAACTAGTTCCAAAC 800

K A I Q I V T P P V D K E A E S Y Q G E E E L V S Q T

Fig. 1A

Title: MCH4 AND MCH5, APOPTOTIC PROTEASE, NUCLEIC ACIDS ENCODING AND METHODS OF USE
Inventor(s): Emad S. Alnemri et al. Express Mail No. EV348172586US Docket No. 480140.424D1

AGATGTTAACATCTTGGAACCTTACCGAGGGCAGCTGTGTACAGGATGAATCGAACACAGAGGCCTGTGTCA 880
D V K T F L E A L P R A A V Y R M N R N H R G L C V
TTGTCACAACCACAGCTTACCTCCCTGAAGGACAGACAAGGAACCCATAAAGATGCTGAGATCCTGAGTCATGTGTC 960
I V N N H S F T S L K D R Q G T H K D A E I L S H V F
CAGTGGCTTGGGTTCACAGTCATACACAATAATGTGACGAAAGTGGAAATGGAGATGGCCTGCAGAACAGAAGTG 1040
Q W L G F T V H I H N N V T K V E M E M V L Q K Q K C
CAATCCAGCCATGCCGACGGGACTGCTCGTCTGTATTCTGACCCATGGAGATTGGAGCTGTACTCTCGG 1120
N P A H A D G D C F V F C I L T H G R F G A V Y S S
ATGAGGCCCTCATCCCATCGGGAGATCATGTCTCACTCACAGCCCTGCAGTGCCTAGACTGGCTGAAACCTAAA 1200
D E A L I P I R E I M S H F T A L Q C P R L A E K P K
CTCTTTTCATCCAGGCCTGCCAAGGTGAAGAGATAACGCCCTCCGTATCCATCGAAGCAGATGCTCTGAACCCGTAGCA 1280
L F F I Q A C Q G E E I Q P S V S I E A D A L N P E Q
GGCACCCACTCCCTGCAGGACAGTATTCCCTGCCGAGGCTGACTCCCTACTTGGCTGGCCACTGCCCAGGCTATGTAT 1360
A P T S L Q D S I P A E A D F L L G L A T V P G Y V
CCTTCGGCATGTGGAGGAAGGCAGCTGGTATATTCACTCTGTGTAAATCATCTGAAGAAATTGGCCCAAGACATGAA 1440
S F R H V E E G S W Y I Q S L C N H L K K L V P R H E
GACATCTTATCCATCCTCACTGCTGTCAACGATGATGTGAGTCGAAGAGTGGACAAACAGGGAACAAAGAACAGATGCC 1520
D I L S I L T A V N D D V S R R V D K Q G T K K Q M P
CCAGCCTGCTTCACACTAAGGAAAAACTAGTATTCCCTGTGCCCTGGATGCACTTCAATATAGCAGAGAGTTTG 1600
Q P A F T L R K K L V F P V P L D A L S I
NTGGTTCTTAGACCTAAACGAATCATTGGGNTATAACCTCCAGCCTCTGCCAGCACAGGAATCGGTGGTCTCCACCTG 1680
TCATTCTAGAACAGGAAAC 1700

Fig. 1B

Title: MCH4 AND MCH5, APOPTOTIC PROTEASE, NUCLEIC ACIDS ENCODING AND METHODS OF USE
Inventor(s): Emad S. Alnemri et al. Express Mail No. EV348172586US Docket No. 480140.424D1

TGAAGGCTGGTGTTCAGACTGAGCTTCTGCCTGCCTGTACCCGCCAACAGCTCAGAAGAAGGTGACTGGTGGCTGC 80

CTGAGGAATACCACTGGCAAGAGAATTAGCATTCTGGAGCATCTGCTGTGAGCAGCCCTGGTGCCTCCACTTTC 160

TGGGCACGTGAGGTTGGGCCTGGCCGCTGAGCCCTGAGTTGGTCACTTGAACCTGGAAATATTGAGATTATATTCT 240

CCTGCCTTTAAAAAGATGGACTTCAGCAGAAATCTTATGATATTGGGAACAACGGACAGTGAAGATCTGGCTCCC 320

M D F S R N L Y D I G E Q L D S E D L A S

TCAAGTTCTGAGCCTGGACTACATTCCGCAAAGGAAGCAAGAACCCATCAAGGATGCCTGATGTTATTCCAGAGACTC 400

L K F L S L D Y I P Q R K Q E P I K D A L M L F Q R L

CAGGAAAAGAGAATGTTGGAGGAAAGCAATCTGCTCTGAAGGAGCTGCTTCCGAATTAAAGACTGGATTTGCT 480

Q E K R M L E E S N L S F L K E L L F R I N R L D L L

GATTACCTACCTAACACTAGAAAGGAGGAGATGGAAGGAACTTCAGACACCAGGCAGGGCTCAAATTCTGCCTACA 560

I T Y L N T R K E E M E R E L Q T P G R A Q I S A Y

GGTTCCACTTCTGCCGATGAGCTGGCTGAAGCAAACAGCCAGTGCACACAGTCTGTACCTTCTGGCGGAGGGTC 640

R F H F C R M S W A E A N S Q C Q T Q S V P F W R R V

GATCATCTATAAGGGTATGCTCTATCAGATTCAAGAAGTGAAGCAGATCAAGATTGAGGTCTTTAAGTTCT 720

D H L L I R V M L Y Q I S E E V S R S E L R S F K F L

TTTGCAAGAGGAAATCTCAAATGCAAACGGATGATGACATGAACCTGCTGGATATTTCATAGAGATGGAGAAGAGGG 800

L Q E E I S K C K L D D D M N L L D I F I E M E K R

TCATCTGGAGAAGGAAAGTGGACATCTGAAAAGAGTCTGTGCCAAATCAACAAGAGCCTGCTGAAGATAATCAAC 880

V I L G E G K L D I L K R V C A Q I N K S L L K I I N

GACTATGAAGAATTCAAGCAAGGGGAGGAGTTGTGGTAATGACGATGTCGGACTGTCCAAGAGAACAGGATAGTA 960

D Y E E F S K G E E L C G V M T M S D C P R E Q D S E

Fig. 2A

Title: MCH4 AND MCH5, APOPTOTIC PROTEASE, NUCLEIC ACIDS ENCODING AND METHODS OF USE
Inventor(s): Emad S. Alnemri et al. Express Mail No. EV348172586US Docket No. 480140.424D1

ATCACAGACTTGGACAAAGTTACCAAATGAAAAGCAAGCCTGGGATACTGTCTGATCATACAATCACATTG 1040
S Q T L D K V Y Q M K S K P R G Y C L I I N N H N F
CAAAAGCACGGGAGAAAGTGCCAAACTCACAGCATTAGGGACAGGAATGGAACACACTGGATGCAGGGCTTGACC 1120
A K A R E K V P K L H S I R D R N G T H L D A G A L T
ACGACCTTGAGAGCTTCATTTGAGATCAAGCCCCACCATGACTGCACAGTAGAGCAAATCTATGAGATTTGAAAAT 1200
T T F E E L H F E I K P H H D C T V E Q I Y E I L K I
CTACCAACTCATGGACCACAGTAACATGGACTGCTTCATCTGCTGTATCCTCTCCATGGAGACAAGGGCATCATCTATG 1280
Y Q L M D H S N M D C F I C C I L S H G D K G I I Y
GCACTGATGGACAGGAGGCCCATCTATGAGCTGACATCTCAGTTCACTGGTTGAAGTGCCCTCCCTGCTGGAAAA 1360
G T D G Q E A P I Y E L T S Q F T G L K C P S L A G K
CCCAAAGTGTGTTTATTCAAGGCTTGTCAAGGGGATAACTACCAGAAAGGTACCTGTTGAGACTGATTCAAGGGAGCA 1440
P K V F F I Q A C Q G D N Y Q K G I P V E T D S E E Q
ACCCATTAGAAATGGATTATCATCACCTCAAACGAGATATATCCGGATGAGGCTGACTTCTGCTGGGATGGCCA 1520
P Y L E M D L S S P Q T R Y I P D E A D F L L G M A
CTGTGAATACTGTGTTCTACGAAACCTGCAGAGGAACCTGGTACATCCAGTCACGGCTGACTTCTGCTGGGATGGCCA 1600
T V N N C V S Y R N P A E G T W Y I Q S L C Q S L R E
CGATGTCCTCGAGGCATGATATTCTCACCATCCTGACTGAAGTGAACATGAAGTAAGCAACAAGGATGACAAGAAAAA 1680
R C P R G D D I L T I L T E V N Y E V S N K D D K K N
CATGGGAAACAGATGCCTAGCCTACTTCACACTAAGAAAAAAACTGTCTCCCTCTGATTGATGGTGTATTTG 1760
M G K Q M P Q P T F T L R K K L V F P S D
TTGTTTGTGTTGTTGTTGAGACAGAATCTCGCTCTGTCGCCAGGCTGGAGTGCAGTGGCGTGTCTGGC 1840
TCACCGCAAGCTCCGCCTCCGGTCAAGGCCATTCTCTGCT 1883

Fig. 2B

... F L S . . . L . . . L K F L K . K L E . Consensus

1 M D P F L V - - L L H S V S S S L S S S E L T E L K F L C L G R V G K R K L E R human FADD
 1 V - S F E - - K L L I T D S N L G V Q D V E N L K F L C T I G L V P N K K L E K Mch4 A
 1 S R N - - - - - L Y D I G E Q I D S E D I L A S L K F L S L D Y I P Q R K Q E P Mch5 A
 1 V S L E - - R N E L L Y E L S E G I D S E N I K D M I F L L K D S I L P K T E M - - Mch4 B
 1 V D H L L I R V M L Y Q I S E E V S R S E L R S F K E L L Q E E I S K C K L D D Mch5 B

... . L D . F . . L L L . E L L L L L L Consensus

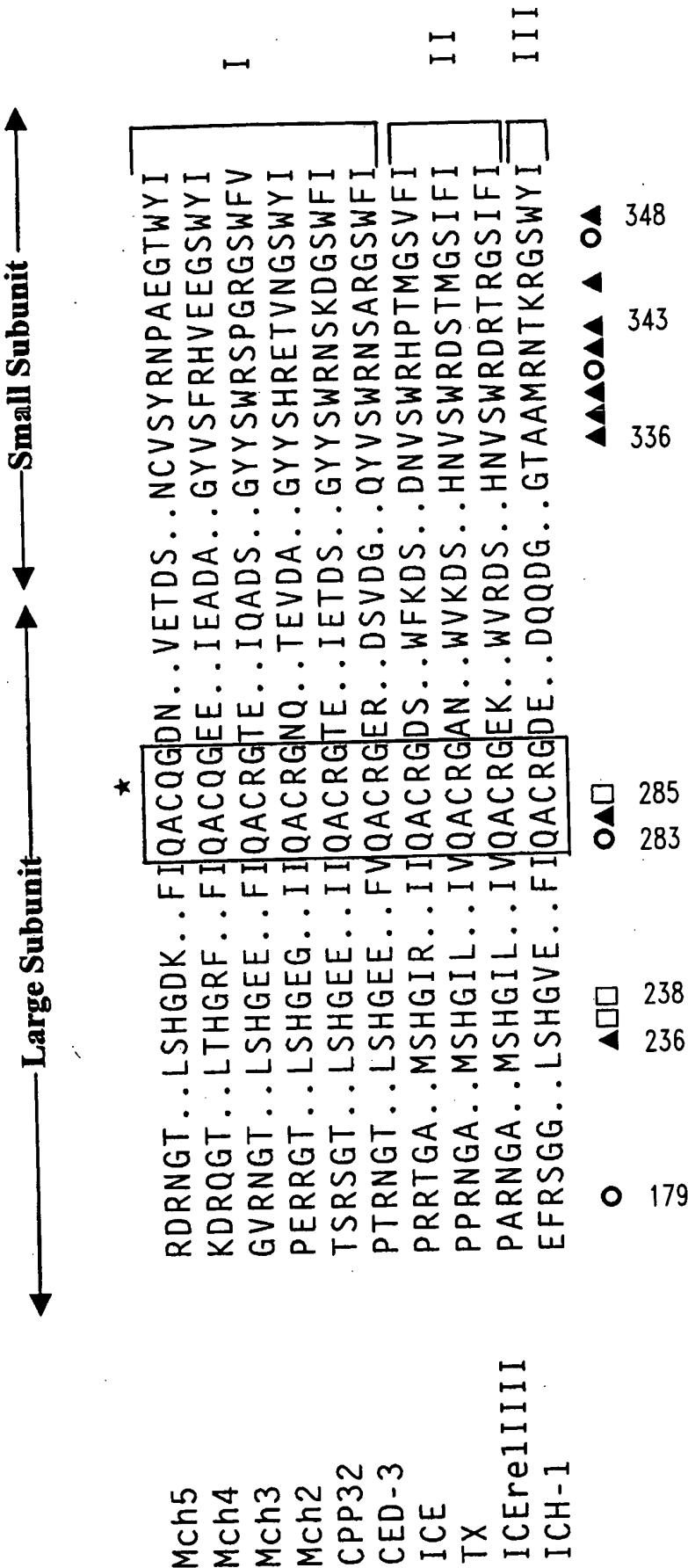
39 V O S G G D I L F S M I L E O N D L E P G H T E L L R E L L A S L R R H D I L L R R human FADD
 38 S S S A S D V F E H I L L A E D I L L S E E D P F E L I A E L L Y I I R O K K I L L Q H Mch4 A
 35 I K D A I M L F O R L Q E K R M L E E S N I S F L K E L L F R I N R I D I L L - - Mch5 A
 37 - - T S L S F L A F L E K O G K I D E D N I T C L E D I L C K T V V P - K L L R N Mch4 B
 41 D M N I L L D I E I E M E K R V I I G E G K L D I L K R V C A Q I N K - S L L K - Mch5 B

Consensus

...

79 V D D F E A human FADD
 78 L N Mch4 A
 73 - - - I T Y Mch5 A
 74 I E K Y K Mch4 B
 79 - - - - - I Mch5 B

Fig. 3A



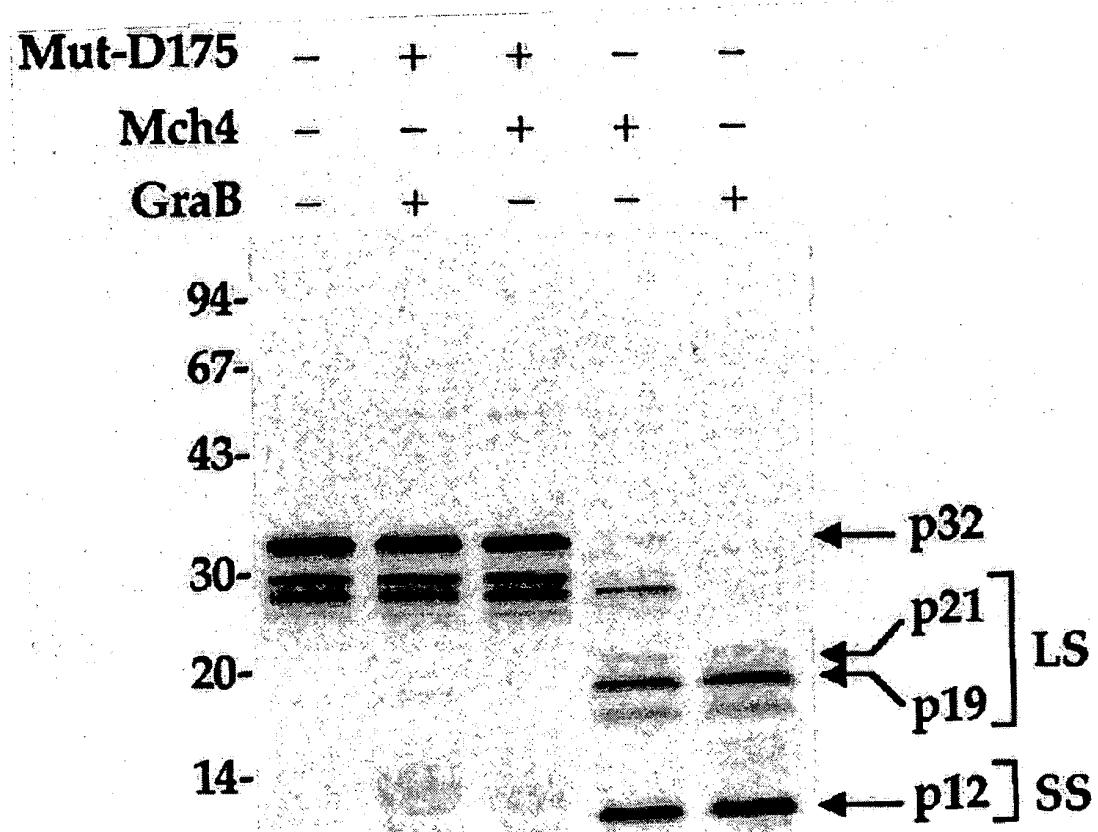


Fig. 4A

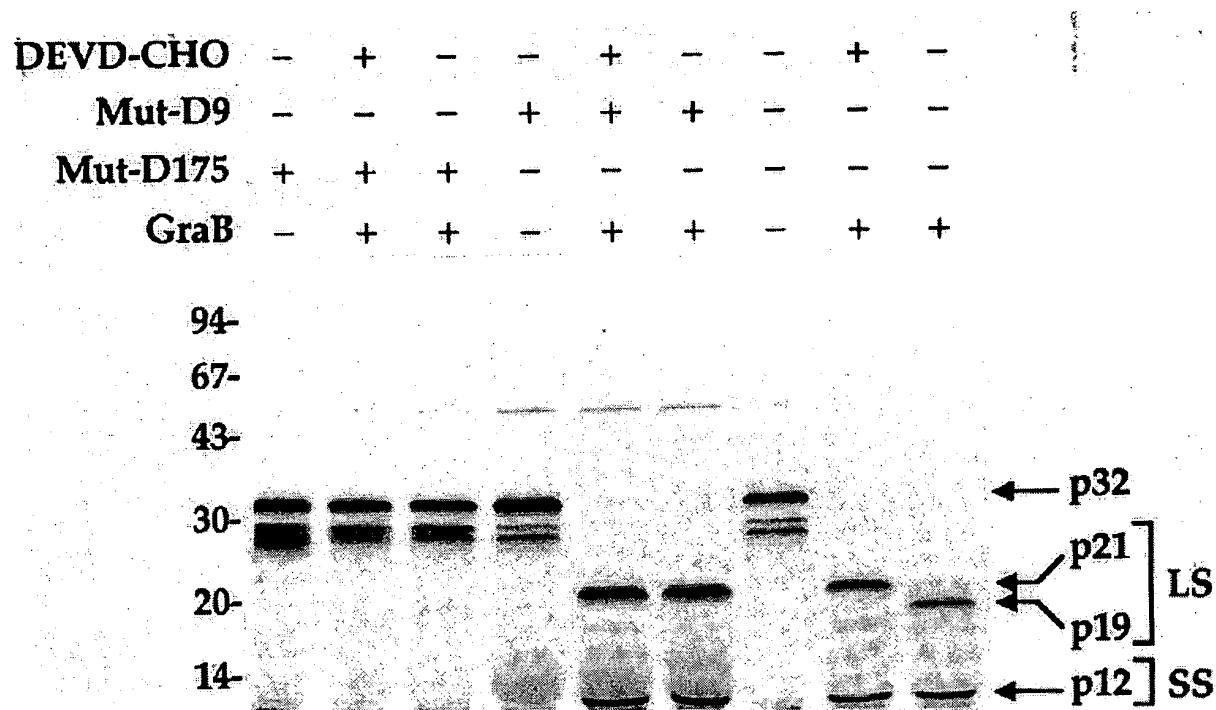


Fig. 4B

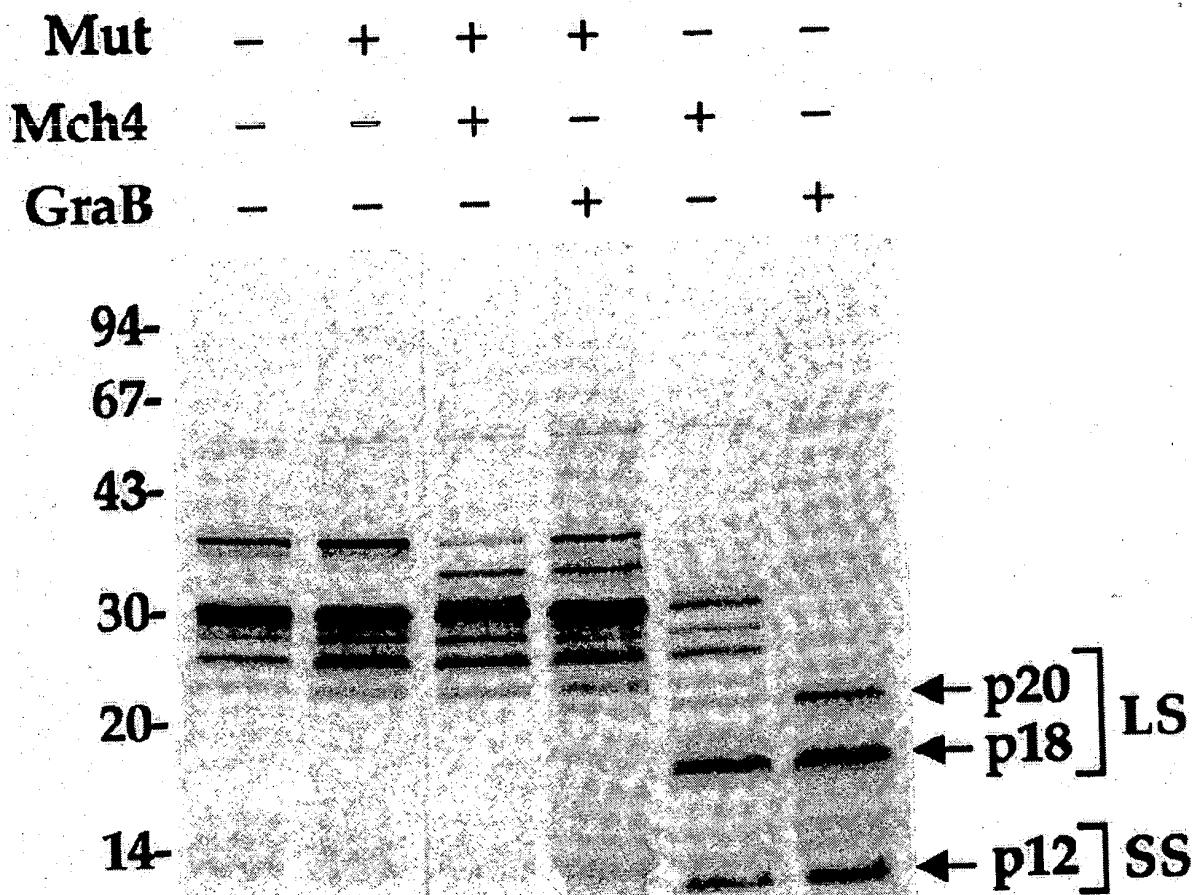
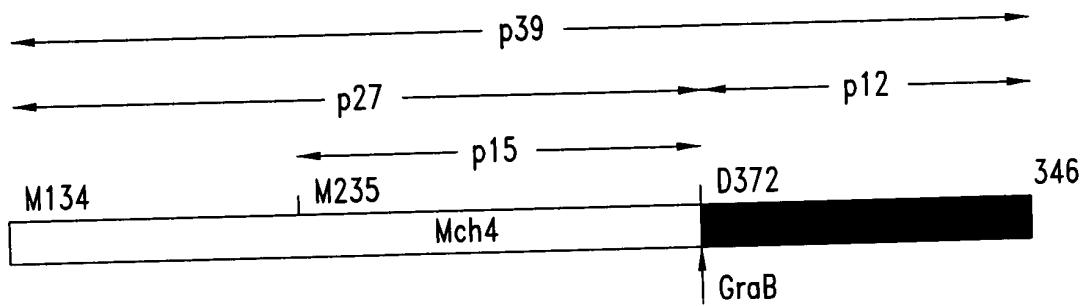


Fig. 5A



Subt	T2	T3	T4	T1	MT	MT	T1	T1
Mch4	-	+	-	-	+	-	+	-
GraB	-	-	+	-	-	+	-	+

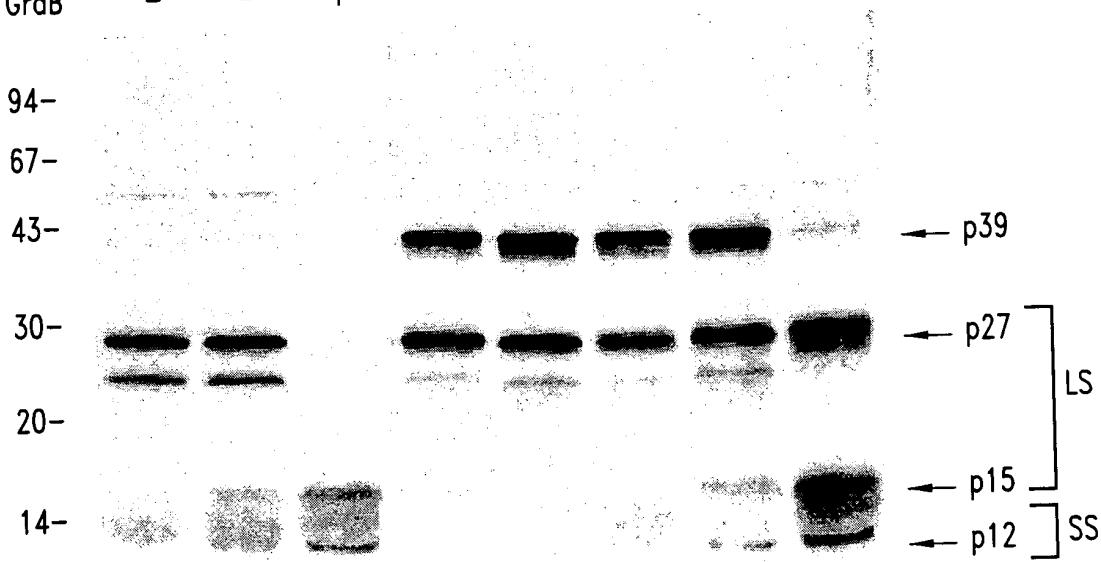


Fig. 5B

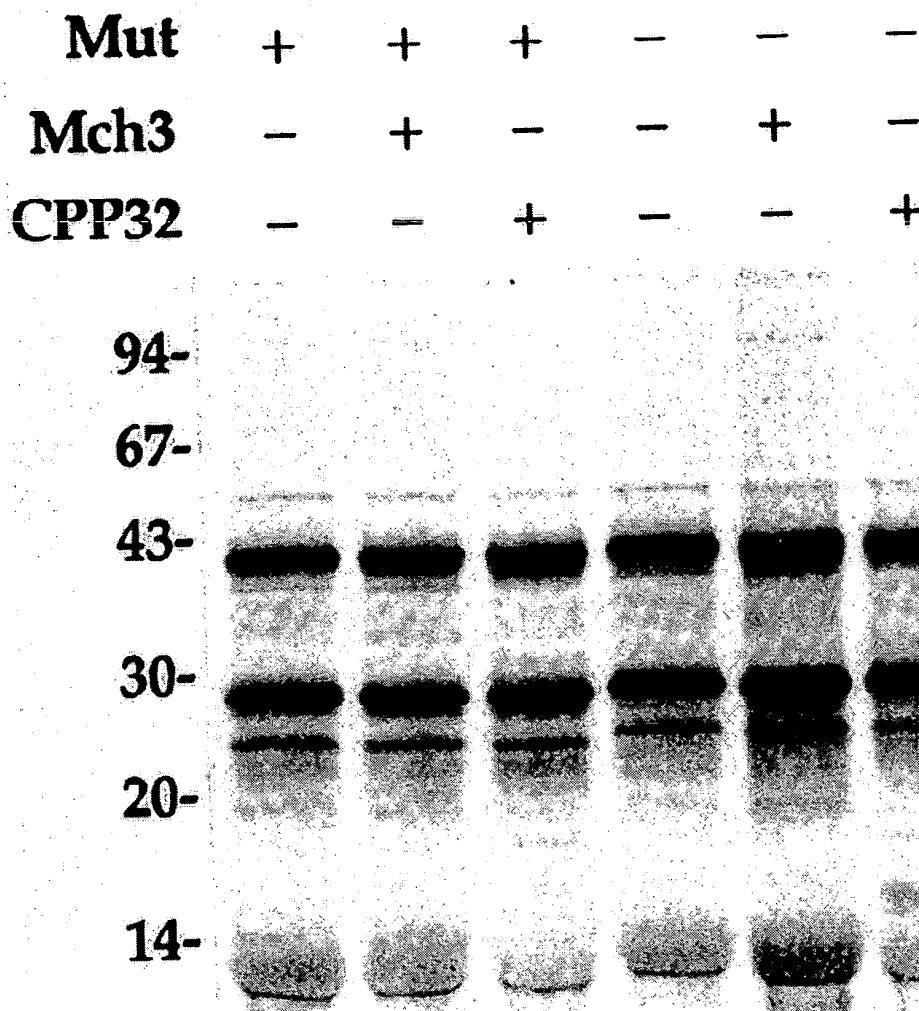


Fig. 6

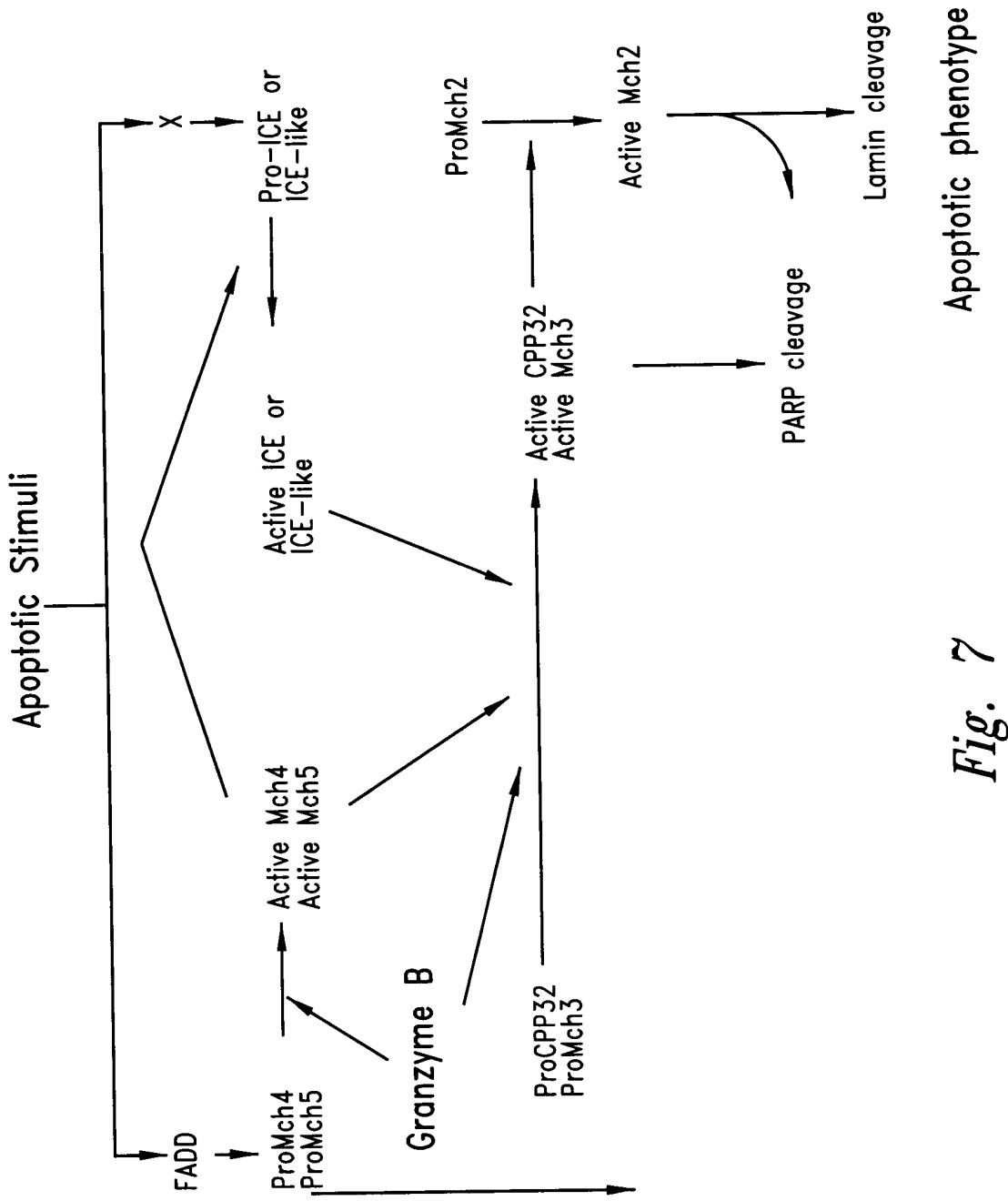


Fig. 7

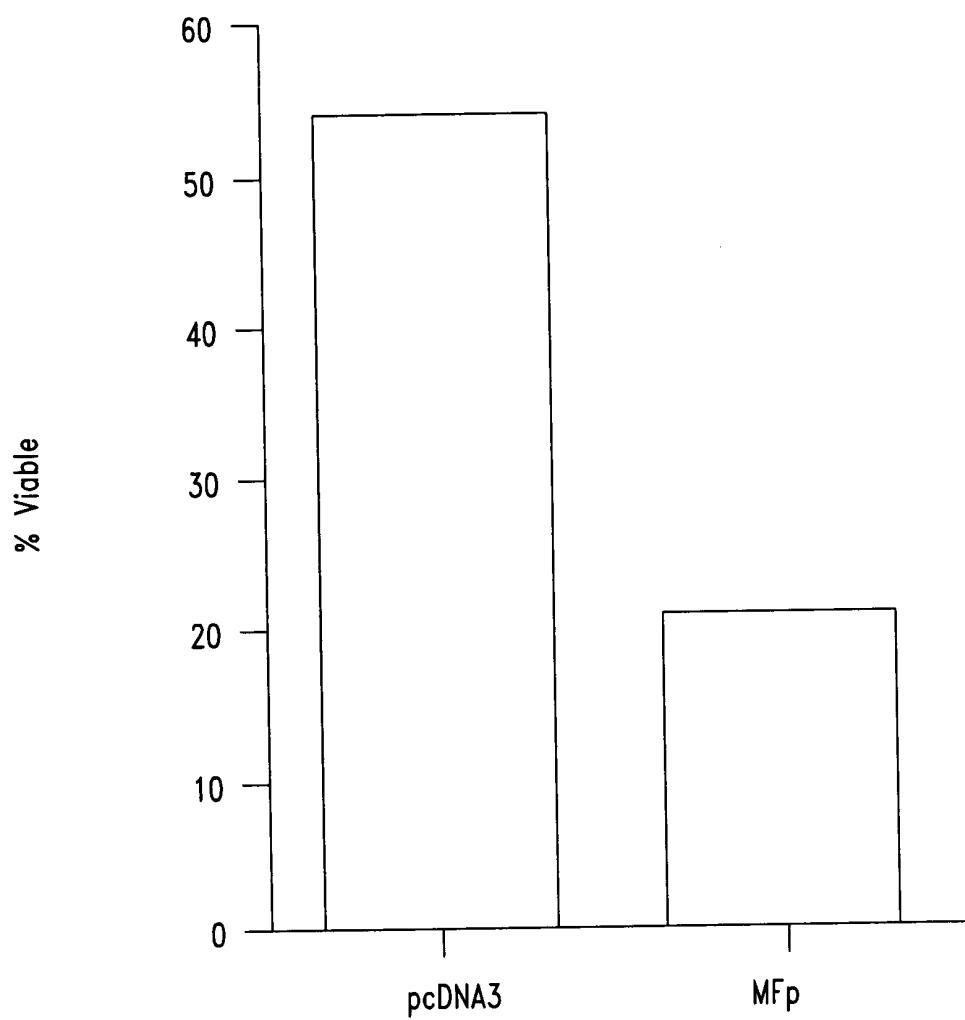


Fig. 8